1: J Reprod Fertil. 1986 Mar;76(2):603-8.

Related Articles, Links

Development of fertilized embryos transferred to oviducts of immature mice.

Papaioannou VE, Ebert KM.

The in-vitro culture of fertilized 1-cell mouse embryos to the blastocyst stage is associated with subsequent decreased viability. In this study, 1-cell embryos were cultured for 3 days in the reproductive tract of immature female mice as an alternative to in-vitro culture. Embryos that spent 3 days in immature females were developmentally more advanced, had higher cell numbers and better viability, as measured by development to mid-gestation, after transfer to pseudopregnant recipient females than did embryos maintained for the same period in culture. Embryos that developed in immature females had lower cell numbers but comparable rates of development and subsequent viability when compared with embryos transferred to synchronous pseudopregnant females for the same preimplantation period. The immature mouse oviduct is therefore a suitable alternative environment to in-vitro culture or a pseudopregnant host for complete preimplantation development and has the additional advantage that synchrony between embryo and temporary host is not necessary. This method will allow for evaluation of manipulation procedures while maintaining viability before the embryos are finally committed to a foster mother for development to term.

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